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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,500	05/25/2007	Kazuo Tagawa	07481.0053	1464
22852	7590	08/17/2009		
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			EXAMINER VASISTH, VISHAL V	
			ART UNIT	PAPER NUMBER
			1797	
			MAIL DATE	DELIVERY MODE
			08/17/2009	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/591,500

**Applicant(s)**

TAGAWA ET AL.

**Examiner**

VISHAL VASISTH

**Art Unit**

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicants filed amendments to the claims in their response dated 4/8/2009. Applicants amended independent claim 1, dependent claim 3 and cancelled claim 2. Applicants' amendment to claim 1 overcame the claim objection and the 35 USC 102 rejection over Kunihiro from the office action mailed on 1/8/2009. Applicants' arguments, discussed below, did not overcome the 35 USC 103 rejection over Shimomura and Cohen. Therefore, these rejections are maintained below and are incorporated herein by reference.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimomura et al, US Patent No. 6,231,782 (hereinafter referred to as Shimomura).

The rejection from Paragraph 6 of office action mailed on 1/8/2009 is maintained and incorporated herein by reference.

***Claim Rejections - 35 USC § 103***

5. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen et al., US Patent No. 6,736,991 (hereinafter referred to as Cohen).

The rejection from Paragraph 7 of office action mailed on 1/8/2009 is maintained and incorporated herein by reference.

***Response to Arguments***

6. Applicants' arguments/remarks filed on 4/8/2009 with respect to claims 1 and 3 have been considered and are not persuasive.

Applicants argue that Shimomura does not suggest the claimed range of %C<sub>A</sub>. This argument is not persuasive. Base oil 4 in column 15, lines 25-27 clearly states that the base oil is a naphthene-based mineral oil with a %C<sub>A</sub> of 10 which is squarely within the range as recited in instant claim 1.

Applicants also argue that Shimomura does not disclose a range of either nitrogen or sulfur concentration in the highly refined mineral oils disclosed in Shimomura. The processes described in Shimomura to produce the highly refined mineral oils are all well known in the art. The processes are employed in the production

of highly refined mineral oils in order to remove contaminants such as nitrogen and sulfur and one of ordinary skill in the art would envisage a mineral oil with a nitrogen content of less than 50 ppm by mass and less than 150 ppm by mass of sulfur from the disclosure of Shimomura.

Applicants further allege unexpected results and provide data in the specification that allegedly supports the applicants' position. However, the data submitted is not commensurate with the scope of the claims. For example, the inventive oils 1-2 and 6 on pages 48-50 of the instant specification discloses a mineral oil with a nitrogen content ranging from 8 to 15 which is much narrower than the claimed range in instant claim 1. Also, the inventive mineral oils 1-2 and 6 have a percentage of aromatic ring structure in the mineral oil of 8-12 which is also much narrower than the range as recited in claim 1 of the instant application. The same is true for the sulfur content of the inventive oils 1, 2 and 6. Also, the base oils of the specification are all limited by kinematic viscosities which are not present in the claims. Furthermore, from table 2 of page 53 of the instant specification it is evident that the base oil is present within a narrow concentration range which is not recited in instant claim 1.

Applicants argue that Shimomura discloses a sulfur-containing ADDITIVE and therefore it teaches away from low sulfur in the base oil. This is not at all persuasive. Claim 1 recites that the sulfur content of the BASE OIL is not more than 150 ppm by mass and does not disclose the sulfur content of the lubricant composition as a whole. Also, claim 3 of the instant application also recites a sulfur-containing additive present in the lubricant composition.

Finally, applicants argue that Cohen does not teach the sulfur content in the range as recited in amended claim 1. This argument is also not persuasive. Cohen in column 3 clearly states that the mineral oils are filtered to reduce sulfur and nitrogen contents and that the respective concentrations of both sulfur and nitrogen have been reduced to levels of 0.05% (500 ppm) or lower which clearly overlaps and encompasses the range as recited in claim 1.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VISHAL VASISTH whose telephone number is (571)270-3716. The examiner can normally be reached on M-R 8:30a-5:30p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571)272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ellen M McAvoy/

Primary Examiner, Art Unit 1797

VVV